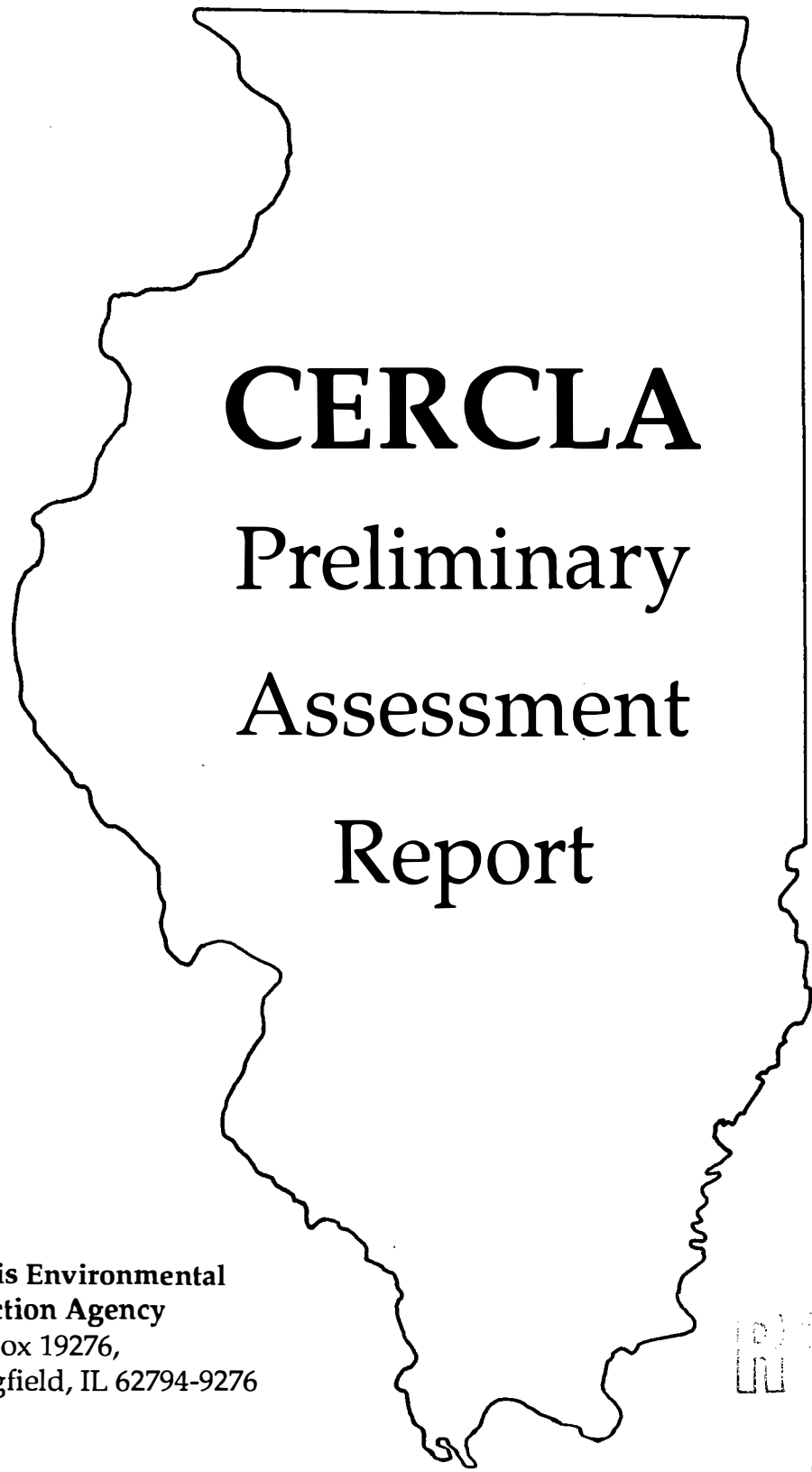
981895

L0950105001 - Knox
Galesburg/Gates Rubber Co.
ILD005230370
SF/HRS



CERCLA
Preliminary Assessment Report

Illinois Environmental Protection Agency
P.O. Box 19276,
Springfield, IL 62794-9276

Confidential Material May be Enclosed

EXECUTIVE SUMMARY

Gates Rubber was placed on CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) on September 26, 1990 as a result of a request for discovery action initiated by the Illinois Environmental Protection Agency (IEPA). This action was taken as a direct result of previous accidental spills and releases which have been shown to have contaminated surface water and groundwater.

Gates Rubber is located about 1 mile southeast of the city of Galesburg on route 150 in the southwest 1/4 of section 19, Township 11 North, Range 2 East of Knox County. The property covers an area of 106 acres. Surrounding land uses includes agricultural and residential. Residential uses includes a trailer park with about 140 trailers abutting the east property line of Gates Rubber and a trailer park to the northwest of the site. Besides the two trailer parks, residential use of the surrounding land is sparse until the cities of Galesburg and Knoxville are reached.

Prior to Gates Rubber, the property it is located on was used for agriculture, and presently some of Gates' property is farmed. Gates began operating in 1961.

Gates manufacturers a variety of hose products at its facility. Neoprene is frequently used as the cover layer of the hose. Hypalon is also used as a cover layer. Nitrile is used for applications requiring oil resistance.

Some of the hose products are extruded through the use

of a lead extrusion process. Large amounts of lead are used at the facility and recycled back into the process. As the lead hose is extruded, it is cooled with water. This water is returned to the facility's cooling tower and recirculated. About twice per year, according to facility personnel, the cooling system is drained into the container shown in photograph no. 11. The water/sludge mixture drained into the container is allowed to evaporate, and the remaining sludge is classed as hazardous and is manifested to Envirite in Harvey, Illinois, once a year. During the recycling of the lead in the manufacturing process, the cooled lead is again melted and the lead dross that accumulates on the surface is collected and manifested off-site. Approximately 35,000 pounds of waste lead dross is manifested off-site twice a year and sent to Schuylkill Metals Corporation in Missouri. Three dust collectors exist in the lead extrusion area of the plant. Approximately 4,400 pounds of dust from these collectors is manifested off-site twice a year to Schuylkill Metals Corporation.

According to a 1990 IEPA Resource Conservation and Recovery Act inspection report, other waste generated at Gates Rubber include; waste petroleum naptha, waste flammable liquid containing cyclohexanone and methyl ethyl ketone, waste cleaning compound containing toluene and Barsol 140 and waste 1,1,1-trichlorethane. According to facility personnel, one 55 gallon drum of mixed solvent waste accumulates every few months. Gates Rubber is regulated as a reduced

requirement generator of hazardous waste under the Resource Conservation and Recovery Act. A reduced requirement generator generates 100 to 1000 kilograms of hazardous waste a month.

According to a 1989 IEPA memo, waste oils generated by Gates consist of; hydraulic oil from impulse testers used for quality control of the pneumatic hose manufactured at the facility, process oil which leaks from the bearings of mixers and lubrication oil from forklifts and machinery. The waste hydraulic oil probably accounts for 70% of the total waste oil volume. According to facility personnel, approximately 1,000 gallons of waste oil is manifested off-site every two or three weeks to Safety-Kleen, Inc. in Pekin, Illinois.

According to IEPA files, in October of 1966 Gates Rubber was inspected by personnel from the Illinois Department of Public Health and was found to be in violation of Section 145.10 of the Sanitary Water board Act. Essentially, Gates Rubber was found to be providing inadequate treatment of it's plants waste waters, resulting in pollution of waters of the state. A manmade drainage ditch immediately southwest of the site was found to be polluted with oily industrial waste coming from Gates Rubber. This ditch flows easterly where it empties into Haw Creek about 1 mile downstream of Gates Rubber, according to a August 1990 letter from Gates Rubber to the IEPA.

According to IEPA files, in March of 1967 inspectors from the Illinois Department of Public Health found oily

industrial waste at the same ditch referenced above. In May of 1968 an inspector from the Illinois Department of Public Health conducted an engineering inspection of a new oil separator installed to prevent oily discharge to the above referenced ditch. The inspector found oily waste downstream of the new oil separator. A Gates representative suggested that the oil in the ditch was a result of discharge prior to installation of the new oil separator.

According to IEPA files, in March of 1979 Gates Rubber experienced a release of 11,156 gallons of fuel oil from an above ground storage tank into a diked area surrounding the tank. A sump pump that had been installed within the diked area in order to remove water sensed the fluid level and automatically began pumping the fuel oil over the dike. About 2,800 gallons of fuel oil was released in this manner and this fuel oil eventually flowed into Haw Creek. About 8,300 gallons of oil was recovered from within the diked area. No IEPA file record could be found of any remediation concerning the 2,800 gallons that were released over the dike.

According to IEPA files, during January of 1990 approximately 3000 gallons of fuel oil (no. 2 diesel fuel), mixed with a small amount of used hydraulic fluid, were released from an underground supply line connecting to above ground storage tanks. Gates Rubber hired Beling Consultants Inc. to do a site investigation. The investigation showed that soil was contaminated with BETX (Benzene, ethylbenzene,

and discussed. With the exception of the visual signs of the petroleum release near the fuel oil tanks, no other visual signs of contamination were obvious.

During the site reconnaissance the author noted that the manufacturing grounds of Gates Rubber are fenced. The areas of Gates Rubber property used for agriculture are not fenced. Areas within the property boundaries on the west, east and south side of the manufacturing plant proper are all agricultural with the exception of a trailer park abutting the east boundary of the property. Excluding the manufacturing plant building and the parking lot, gravelled areas and grassy areas cover the manufacturing grounds.

Storm water runoff exits Gates Rubber at two points along the west property line. At both exit points the flow continues to the west through manmade ditches where storm water runoff will empty into Haw Creek. Haw Creek flows in a southerly direction for approximately 22 miles where it empties into the Spoon River. The probable point of entry of storm water runoff from the site is along Haw Creek. The probable point of entry is the point at which storm water runoff from a site will enter a perennially flowing waterway. The probable point of entry for Gates Rubber stormwater runoff is approximately one and one-half miles downstream of the point at which the above referenced manmade ditches enter Haw creek. According to United States Geological Survey maps, Haw creek does not become perennially flowing until approximately one and one-half miles of downstream distance

has been covered from the point at which the above reference ditches enter Haw creek. Fifteen miles downstream of the probable point of entry, Haw Creek has not yet emptied into the Spoon River. According to a August, 1991, Illinois Department of Conservation letter to Alan Kirwan of the IEPA, Haw creek is considered a moderate aquatic resource noted for its catfish fishing and serves as an important nursery area for the Spoon River. No surface water drinking intakes exist within 15 miles of the probable point of entry.

Gates Rubber has dust collectors within its manufacturing plant. The author could find no documentation of a release of hazardous waste to the atmosphere.

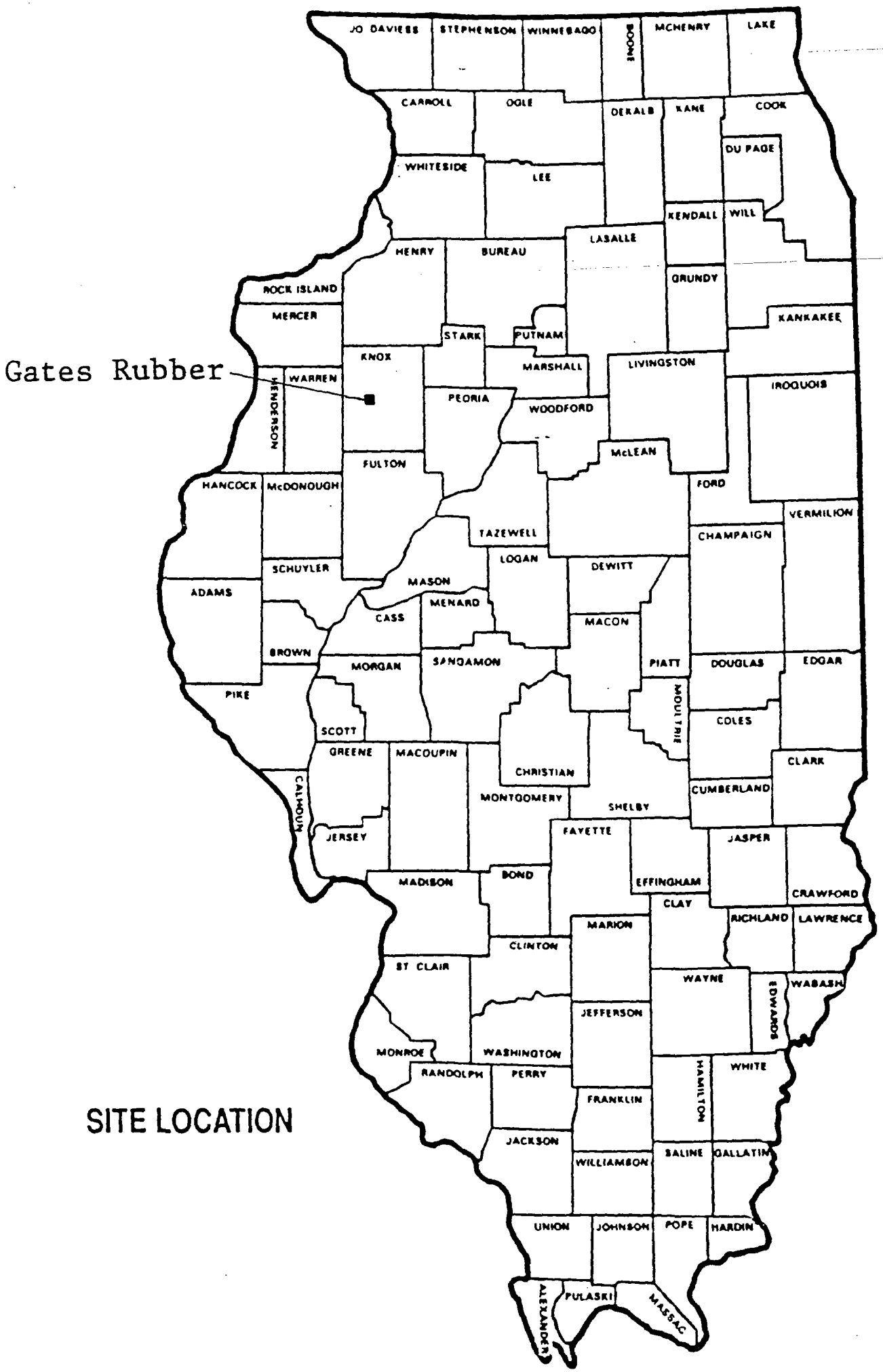
According to Illinois State Water Survey well logs, surficial deposits of the area consists of clayey Pleistocene drift varying in depth from 20 to 100 feet. Underlying the Pleistocene deposits is the Pennsylvanian System consisting of shale layers interbedded with sandstone. The thickness of the Pennsylvanian System is approximately 200 feet. Underlying the Pennsylvanian is the Mississippian System composed of a shale layer of about 250 feet in thickness. Below the Mississippian is the Devonian and then the Silurian Systems composed primarily of limestones and dolomitic beds with a combined thickness of about 200 feet. Below the Devonian and Silurian is the Ordovician System consisting of limestone, shale and sandstone beds. The Ordovician System is approximately 1000 feet thick.

According to Illinois State Water Survey well logs,

private wells in the area contact primarily the sandstone and shale of the Pennsylvanian System. The trailer park on the east side of Gates Rubber obtains its water from the city of Galesburg. Galesburg obtains its water from four wells near the village of Oquawka, Illinois. Oquawka is approximately 35 miles west of Gates Rubber. The four wells at Oquawka are set in a Mississippi river well field where well depths are relatively shallow. The four wells range in depth from 275 feet to 1100 feet. Galesburg used to obtain its water supply from four wells located within Galesburg itself, according to Galesburg Water Division personnel. Galesburg switched to the wells in Oquawka in 1958-59 because the wells in Galesburg were high in sulphur and the wells were losing about 10 feet of drawdown per year. Presently there are still two of the old wells in Galesburg on standby status. According to Galesburg Water Division personnel, the two wells on standby have been used in emergency situations twice in about 30 years.

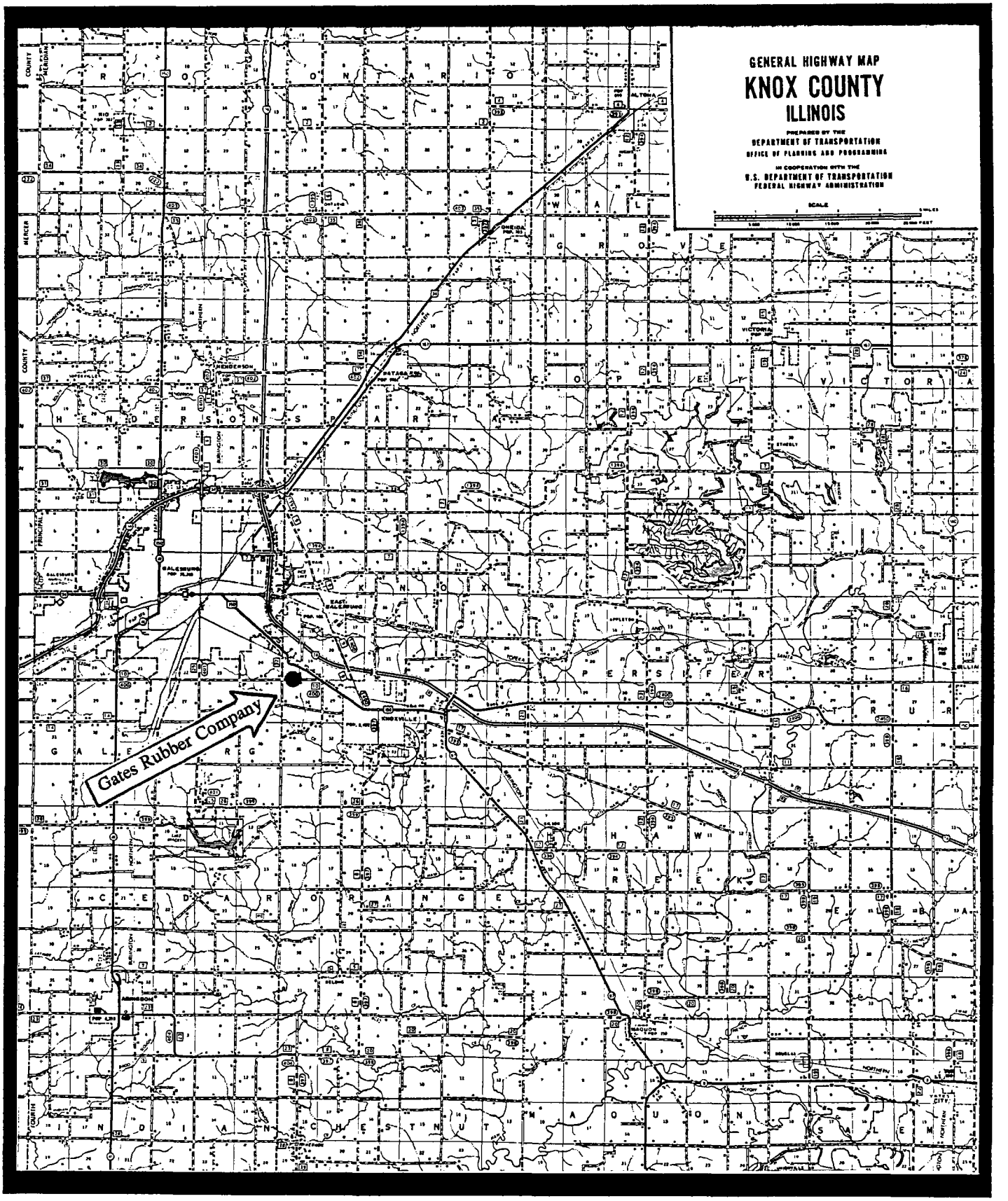
According to an IEPA Public Water Supply report, the city of Knoxville, to the southeast of Gates Rubber, obtains its water from three wells NON-RESPONSIVE, WELL LOCATIONS [redacted] These wells supply about 355,000 gallons per day to 1215 service connections (about 3432 individuals). The wells produce water from deep bedrock aquifers ranging in depth from 1365 feet to 2525 feet.

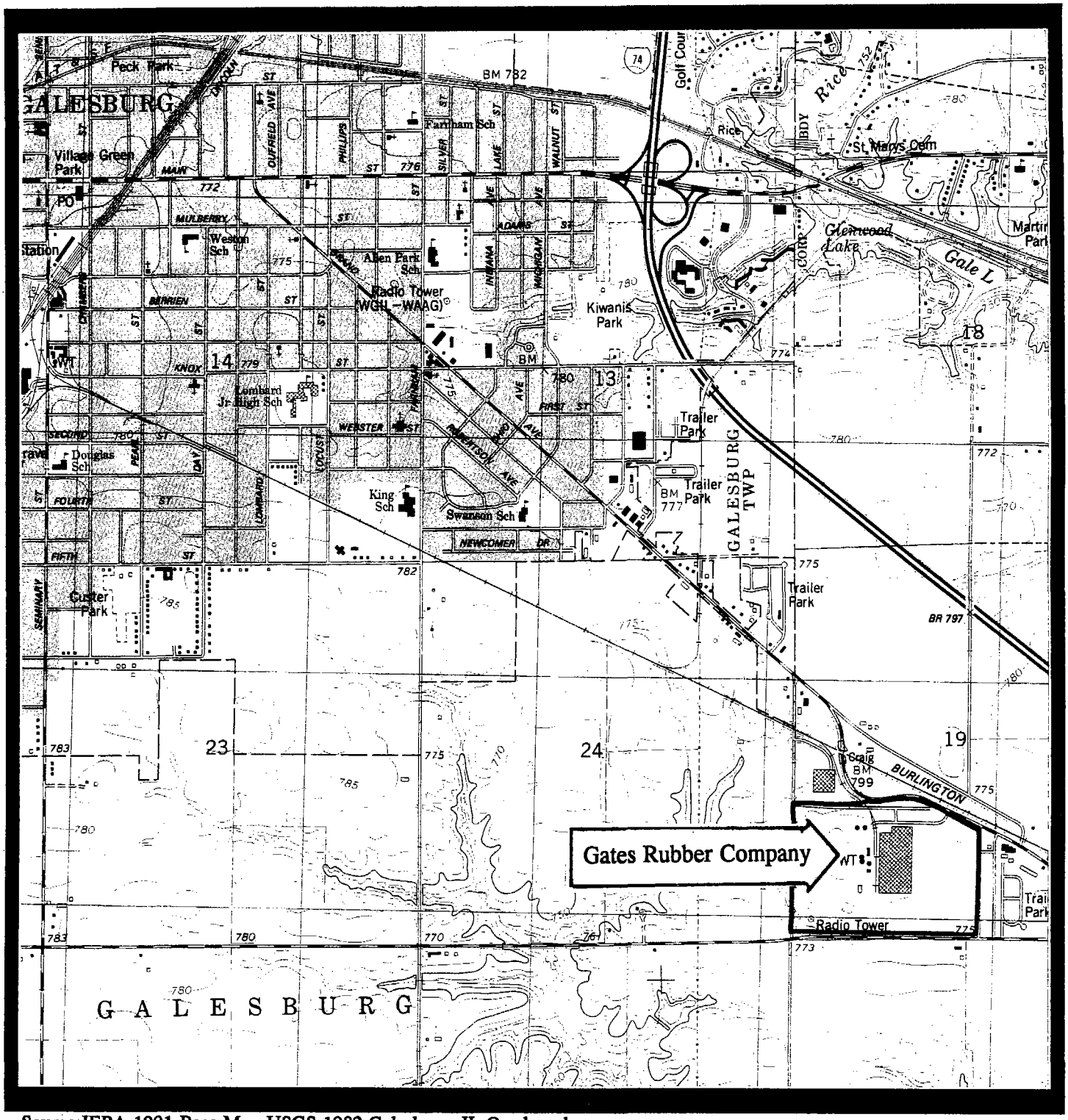
The author of this report has assigned a low priority status recommendation to this site and recommends that the Region V offices of the U.S. Environmental Protection Agency advance this site to the Screening Site Inspection stage of the CERCLA site assessment process and conduct a formal inspection as time allows.



SITE LOCATION

REGIONAL SETTING MAP

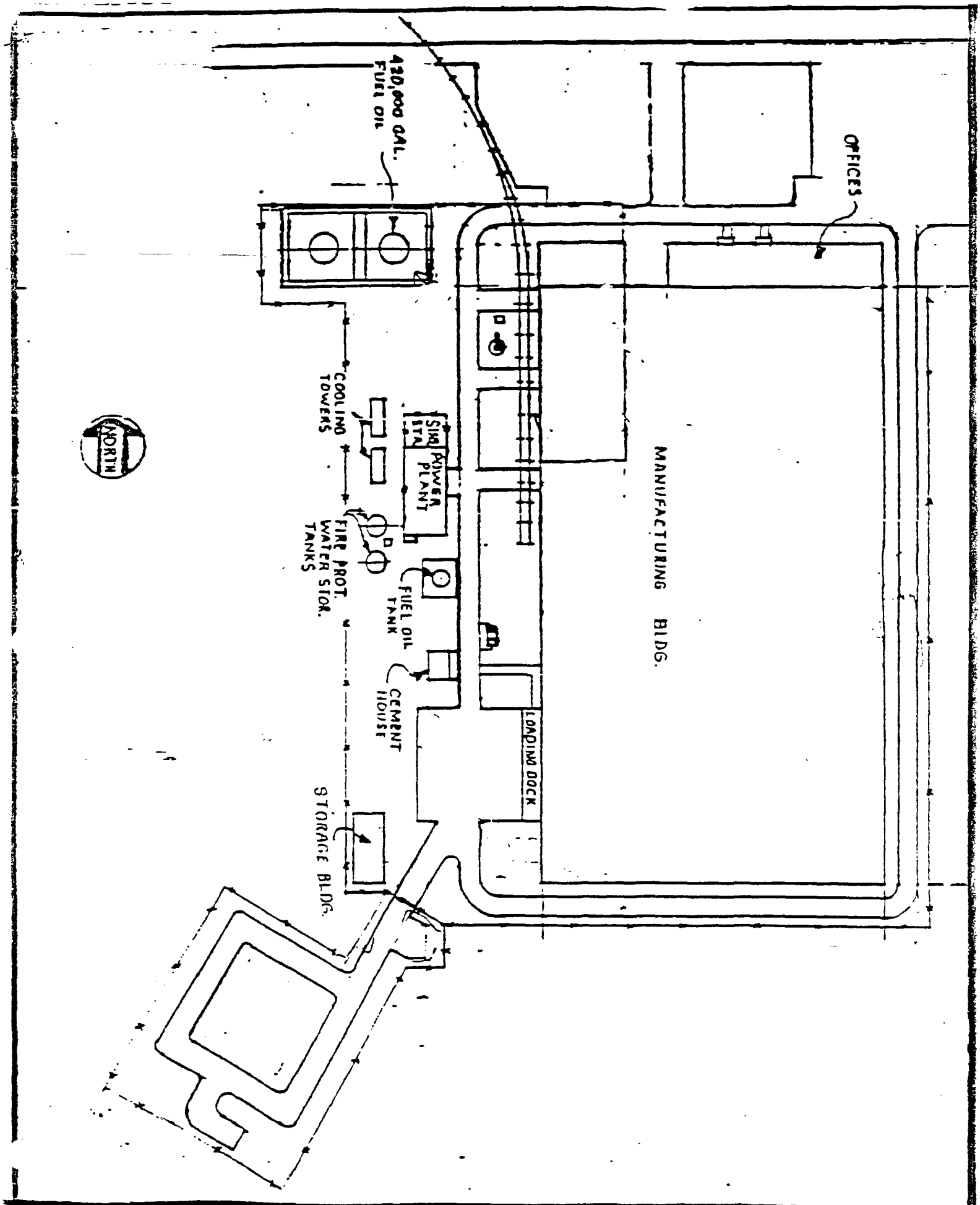




Source:IEPA,1991.Base Map:USGS,1982 Galesburg, IL Quadrangle

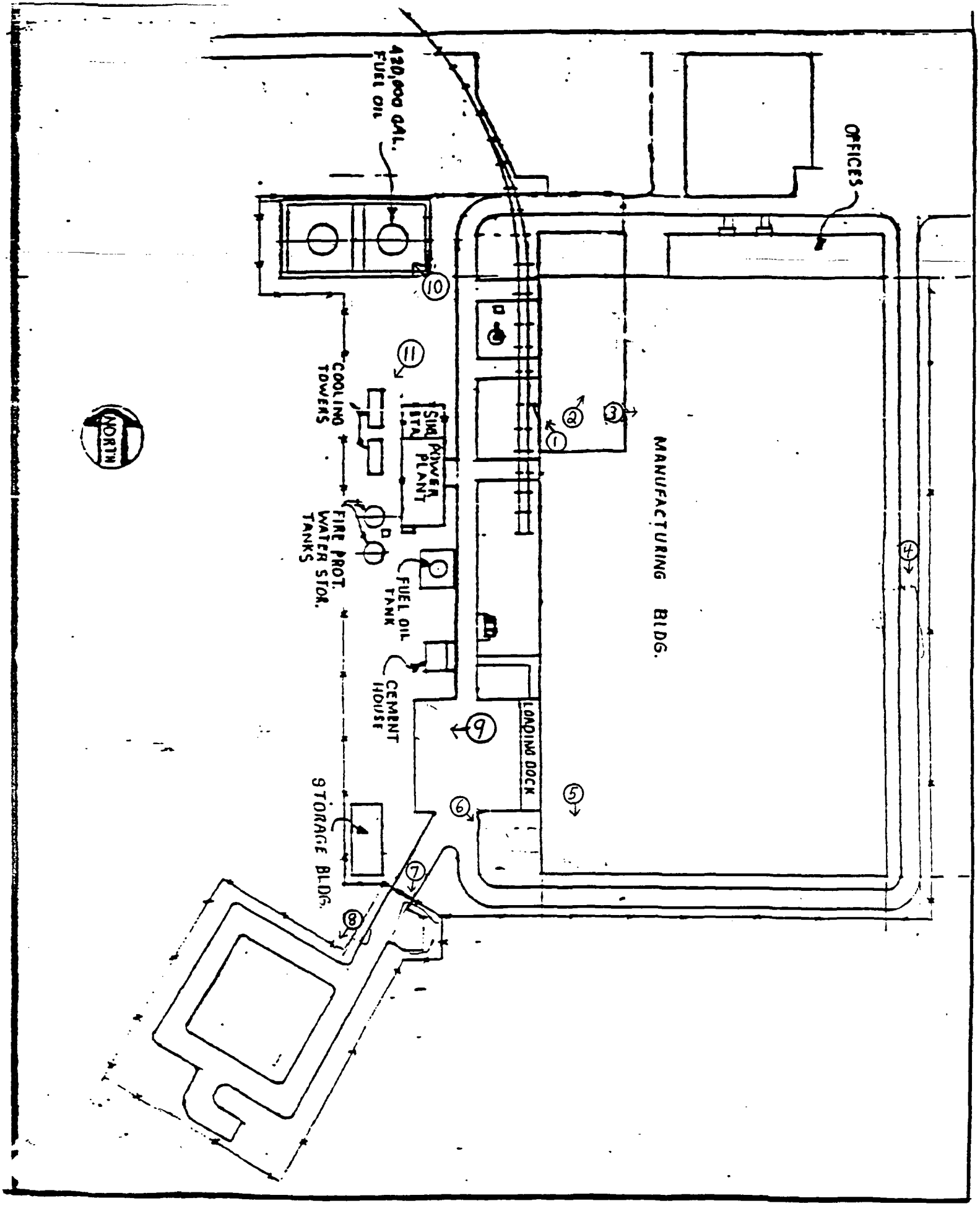
1" = 2,000 Feet

TOPOGRAPHIC MAP



GATES RUBBER SITE MAP

approximate scale: 1" = 140 feet



GATES RUBBER PHOTO LOCATION MAP

approximate scale: 1" = 140 feet

toluene and xylene) and that free product was floating on the groundwater table. Six test pits were dug near the release to pump out free product that collected in the pits. As of August 15, 1990, about 1,200 gallons had been recovered in this manner.

According to a IEPA memo dated November 20, 1990, IEPA personnel approached Gates Rubber with the possibility of Gates Rubber entering into the Voluntary Cleanup program within the Remedial Project Management Section of the IEPA. This would have resulted in the IEPA having oversight of the remediation of the 1990 fuel oil release. Gates Rubber decided not to enter the Voluntary Cleanup program. Gates Rubber has stated that they will pursue remediation of the release but without IEPA oversight.

Because of the unknown CERCLA classification of the petroleum substance documented to have been released at the facility, and because of the virgin petroleum exemption currently under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), it is unknown whether the petroleum released at the site could be classified as a release of a waste substance.

On May 10, 1991, Alan Kirwan of the Illinois Environmental Protection Agency conducted a site reconnaissance inspection at Gates Rubber. Touring the site with Mr. Kirwan were Gates Rubber representatives Mr. Chuck Buchna and Mr. Bob Seibert. During the site tour, production processes, wastestreams and waste storage areas were viewed

Date: 5/10/91

Time: 11:00 A

Photographed By:

AL Kirwan

Location:

LPC 095010 5001

Gates Rubber

Knox Co.

Comments: Photograph taken toward the northwest showing two fuel oil storage tanks

Photograph Number: 1

Roll Number: 91-137-01

Date: 5/10/91

Time: 11:00A

Photographed By:

AL Kirwan

Location:

LPC 095010 5001

Gates Rubber

Knox Co.

Comments: Photograph taken toward the northeast showing dust collectors

Photograph Number: 2

Roll Number: 91-137-02

Date: 5/10/91

Time: 11:00A

Photographed By:

AL Kirwan

Location:

LPC 095010500l

Gates Rubber

Knox Co.

Comments: Photograph taken

toward the east

Photograph Number: 3

Roll Number: 91-137-03

Date: 5/10/91

Time: ~~11:00A~~ 11:30A

Photographed By:

AL Kirwan

Location:

LPC 095010500l

Gates Rubber

Knox Co.

Comments: Photograph taken

toward the south

showing dust collector

hoppers

Photograph Number: 4

Roll Number: 91-137-04

Date: 5/10/91

Time: 11:30A

Photographed By:

AL Kirwan

Location:

LPC 095010 5001

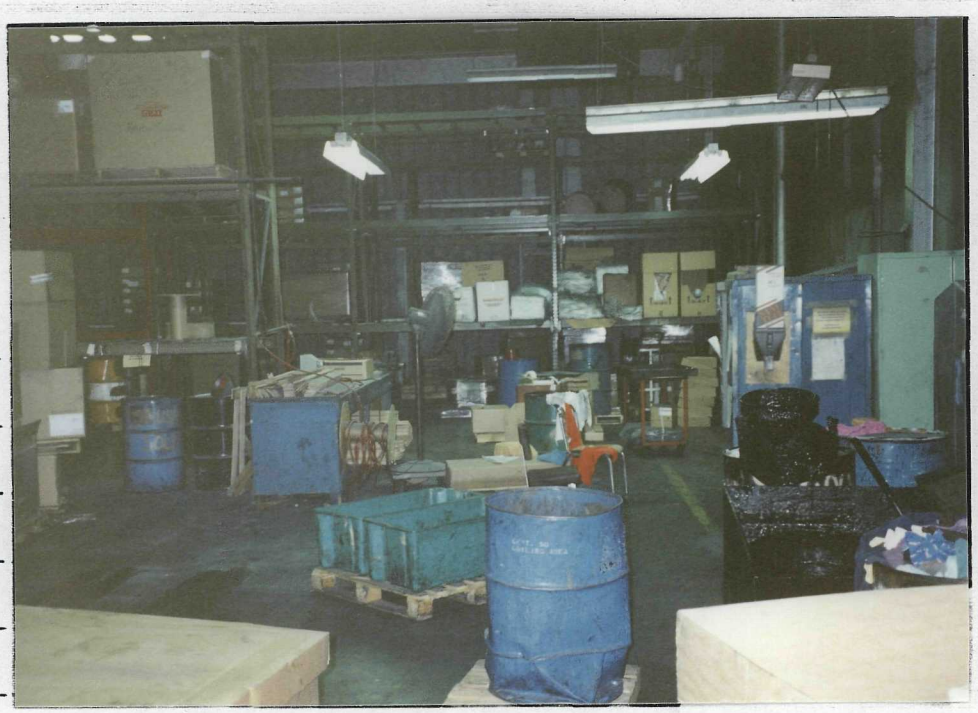
Gates Rubber

Knox Co.

Comments: Photograph taken

toward the south

showing salvage area



Photograph Number: 5

Roll Number: 91-137-05

Date: 5/10/91

Time: 11:30A

Photographed By:

AL Kirwan

Location:

LPC 095010 5001

Gates Rubber

Knox Co.

Comments: Photograph taken

toward the southeast

showing waste oil

collection tank

Photograph Number: 6

Roll Number: 91-137-06

Date: 5/10/91

Time: 12:00P

Photographed By:

AL Kirwan

Location:

LPC 095010 5001

Gates Rubber

Knox Co.

Comments: Photograph taken toward the south showing oil skimmer shed and storage tank

Photograph Number: 7

Roll Number: 91-137-07

Date: 5/10/91

Time: 12:00P

Photographed By:

AL Kirwan

Location:

LPC 095010 5001

Gates Rubber

Knox Co.

Comments: Photograph taken toward the southwest showing former lagoon area past fenceline

Photograph Number: 8

Roll Number: 91-137-08

Date: 5/10/91

Time: 12:30P

Photographed By:

AL Kirwan

Location:

LPC 0950105001

Gates Rubber

Knox Co.

Comments: Photograph taken

toward the west

showing barrel storage

area

Photograph Number: 9

Roll Number: 91-137-09

Date: 5/10/91

Time: 1:00P

Photographed By:

AL Kirwan

Location:

LPC 0950105001

Gates Rubber

Knox Co.

Comments: Photograph taken

toward the northwest

showing fuel oil storage

area

Photograph Number: 10

Roll Number: 91-137-10

Date: 5/10/91

Time: 1:15P

Photographed By:

AL Kirwan

Location:

LPC 09501050 01

Gates Rubber

Knox Co.

Comments: Photograph taken

toward the southwest

showing container

that holds cooling tower sludge

Photograph Number: 11

Roll Number: 91-137-11

Date:

Time:

Photographed By:

Location:

LPC

Co.

Comments: Photograph taken

toward the

Photograph Number:

Roll Number:

NO Photo

SDMS US EPA Region V

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SITE 4-MILE RADIUS MAPS

☐ **Other:**

Supporting Documentation

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Reference

Reference no. 1

STATE OF ILLINOIS
SANITARY WATER BOARD
SPRINGFIELD

TECHNICAL SECRETARY
CLARENCE W. KLASSEN
CHIEF SANITARY ENGINEER
DEPARTMENT OF PUBLIC HEALTH

ADDRESS LETTERS TO:
STATE SANITARY WATER BOARD
SPRINGFIELD, ILLINOIS
62706

December 2, 1966

GALESBURG - Sewage Treatment
(Gates Rubber Co.) Engineering Report

Plant Manager
Gates Rubber Company
Galesburg, Illinois

Dear Sir:

On October 31, 1966, Engineer James F. Neyens, representing this Board, made an inspection of the sewage treatment facilities serving the Gates Rubber Company. Such inspections are made as a part of this Board's program to prevent and abate pollution of waters of the State.

Mr. Lloyd Extrom and Mr. William Rutherford, of your plant, were contacted during this inspection.

Pollution of Waters of the State

Based on our engineer's report, we conclude that the Gates Rubber Company is providing inadequate treatment of its plant waste waters, and is thus causing pollution of waters of the State. Such pollution is in violation of Section 145.10 of the Sanitary Water Board Act (copy enclosed).

Sources of Pollution

There appears to be at least three sources of pollution originating in your plant. These are:

1. Inadequately treated sanitary sewage - The existing sewage treatment plant has capacity for approximately 300 employees, based on average loadings. Our information indicates you now employ about 475 workers, which greatly overloads the present facilities. As a result, the sewage effluent discharged from this treatment plant is of unsatisfactory quality, which in turn is likely to cause pollution of a small stream.

Even though you obtained a Sanitary Water Board permit for the construction of your sewage treatment plant, we call your attention to the condition clause in that permit (#1961-P-348) which states: "This permit is being issued with the understanding that if the proposed waste treatment facilities are incapable of adequately treating the wastes to prevent a nuisance or pollution of Little Haw Creek as determined by the Sanitary Water Board the company will proceed with the installation of additional waste treatment facilities when so requested by the Board."

2. Untreated oily industrial waste - The creek southwest of your plant was observed to be polluted with oily wastes. This oily pollution has rendered this creek unfit for agricultural purposes, such as livestock watering. Since this creek has its source at the sewer from Gates Rubber Company, and the oil deposits begin at that point, we conclude these oil wastes come from your plant. We note in our files a memorandum from a Sanitary Water Board engineer which describes an oil pollution problem in this same creek. At that time, the oil reached the creek following leakage from hydraulic lines, according to a Mr. Robert Drennan, of Gates Rubber. It would seem that a more positive method of oil pollution control than presently used must be adopted at your plant.

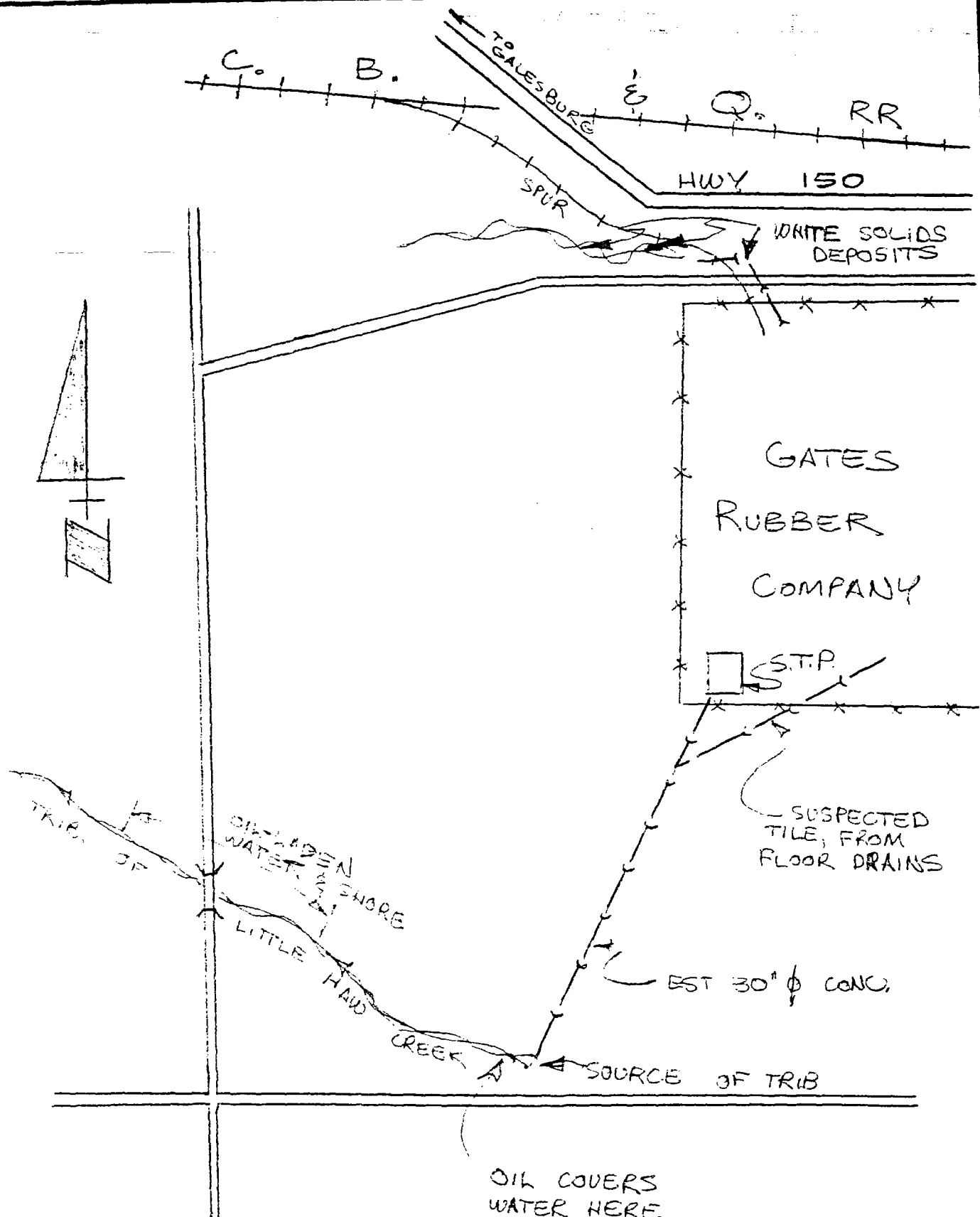
3. Untreated turbid waste water - Near the northwest corner of the plant property, a sewer was located which carried a turbid, milky colored liquid, either industrial waste or water treatment waste water. The excessive solids in this waste have deposited along the watercourse for some distance. Proper treatment could remove this material and prevent its deposition in the watercourse.

Summary of Findings

Pollution of watercourses around the Gates Rubber Company plant exists as a result of inadequately treated sanitary sewage, and untreated industrial or process wastes. The inadequate treatment of sanitary sewage may be corrected by providing additional treatment, either with parallel units, or further treatment of effluent from the existing unit. The industrial wastes must be given adequate treatment to remove objectionable constituents.

Recommendations

It is the recommendation of this Board that qualified consulting engineers be retained by Gates Rubber Company to study the waste treatment needs at this plant. Upon their recommendation, and approval of this Board by permit, additional treatment of wastes should be provided.



Illinois Department of Public Health DIVISION OF SANITARY ENGINEERING	
GATES RUBBER CO GALESBURG	
Insp. JEN	Checked 10/31/67
Reinsp.	Checked
Reinsp.	Checked

Reference no. 2

M E M O R A N D U M

GALESBURG - Gates Rubber Company
Stream Pollution

TO: Bureau of Stream Pollution Control

FROM: K. C. Merideth, NWRO

DATE: 3-24-67

On March 7, 1967 Engineers Neyens and Merideth, NWRO, along with Ken Russell, Fisheries Biologist and Walter Buswell, Galesburg Sanitary District, made a visit to an unnamed creek receiving waste water from the Gates Rubber Company.

The stream was observed to be polluted with what appeared to be both industrial and domestic wastes. The liquid was a grey color with some floating oil. Much discoloration of the banks from oil waste was also observed. Slime growth along the bottom of the stream was evidence of some type of organic enrichment. Laboratory analysis of a sample collected from the industry's main outlet showed a BOD of 47 ppm. This outlet was reported to carry effluent from their small domestic package treatment plant and some cooling water. This outlet is located south and west of the plant.

An outlet at the northwest corner of the plant was observed to be discharging a liquid with a white suspended solids (soap stone). A field pH was measured at 7.6. Laboratory results from a sample collected at this outlet showed a total dissolved mineral solids of 280 ppm, suspended solids of 90 ppm and volatile suspended solids of 30 ppm.

These observed discharges were similar to those reported by Engineer Neyens in his notes made during an inspection on 10-31-66. In a letter from the Gates Rubber Company dated 12-8-66 it was pointed out that plans for expansion of the plant are underway and that these plans would include the handling of their industrial waste as well as plans for expansion of their sanitary sewage system. It was observed during this visit that construction on plant expansion is well underway. At the present time this writer has no knowledge of any plans submitted to our office for any type of waste treatment from the Gates Rubber Company.

As pollutional discharges are continuing and plant expansion is underway apparently without provisions for the abatement of this pollution, the writer has attached a suggested letter to the industry for your approval and signature.

Kenneth C. Merideth
Sanitary Engineer

KCM:new

February 27, 1967

Mr. E. A. Frederick
State Sanitary Water Board
Springfield, Illinois

Dear Mr. Frederick:

Upon receipt of a copy of the letter from Mr. Ernest Wedell, Jr., Knoxville Road, I investigated conditions in the open streams in the area to which Mr. Wedell referred. On Monday, February 20, 1967, I inspected (1) Court Creek just downstream from Grand and Farnham, at the point where the 54" storm sewer terminates and open creek resumes; (2) unnamed creek at East Knox Street some 400' west of FAI #74 overpass near the animal shelter; and (3) unnamed creek near County Highway #10 just downstream of the outfall from Gates Rubber Company manufacturing plant/

At (1) there was clear water only, with no odor, no cloud, and no particular matter observed in the flow. A 5-day 20°C. B.O.D. test showed a B.O.D. of zero.

At (2) a small stream flowing eastward along the south side of Knox Street converges with a small stream flowing in a northerly direction, and the stream flow continues northward. A sample from the eastbound branch just above the point of convergence was observed, with a generally clear appearance, but a discernible cloudiness and a sour-sewage odor, quite faint, was noted. A 5-day B.O.D. was 5 mg/l. No particular matter was observed, but gooch crucible method suspended solids determination revealed 12 mg/l s.s.

A sample from the north-flowing branch duplicated the appearance and odor of the east-flowing branch, but a B.O.D. of 12 mg/l suggests a somewhat greater sewage fraction. S.s. were 12 mg/l.

The above two samples came from a largely unsewered portion in the east end, with the north-flowing branch carrying the drainage from the trailer concentration along or near Grand Avenue.

A sample was taken just below the Gates outfall, and the following observations were recorded:

Appearance - cloudy
Odor - slightly oily, not kerosene or distillate. Some finely divided particulate matter was observed.
5-day B.O.D. - 24 mg/l - S.S. 59 mg/l

Reference no. 3

STATE OF ILLINOIS

SANITARY WATER BOARD

SPRINGFIELD

TECHNICAL SECRETARY
CLARENCE W. KLASSEN
CHIEF SANITARY ENGINEER
DEPARTMENT OF PUBLIC HEALTH

ADDRESS LETTERS TO:
STATE SANITARY WATER BOARD
SPRINGFIELD, ILLINOIS
62706

June 6, 1968

GALESBURG - Sewage Treatment
(Gates Rubber Company) - Engineering Report

Plant Manager
Gates Rubber Company
Galesburg, Illinois 61401

Dear Sir:

On May 1, 1968 Engineer Kenneth C. Merideth, representing this Board, conducted an engineering inspection of the sewage and industrial waste treatment facilities serving your plant. Your employee, Mr. William Rutherford, was contacted at the time of the visit. This letter will serve to confirm and augment comments made by our engineer at that time.

Based on our engineer's report, we conclude that the new contact stabilization sewage treatment plant and new oil separator have been constructed substantially in agreement with the approved plans and specifications. These facilities, if properly operated and maintained, should provide the degree of treatment necessary for discharge of your wastes to waters of the State. Our engineer reported, however, that the sewage treatment facility was operating in an unsatisfactory manner because of a faulty air line in the final clarifier. This deficiency should be repaired as soon as possible.

Our engineer also pointed out that oil was present in the outlet stream west of the plant. Although this oil discharge could have occurred prior to construction of the oil separation facilities, it could have been caused by a malfunction of the separator. We request that visual checks be made at various pumping levels to determine if the oil could have escaped through the separator pumps at low water levels or through vortexing.

Operation Reports

We will expect to receive detailed operation reports from both the sewage treatment facility and the oil separation facility within the very near future. These reports were discussed both

INSPECTION NOTES

PLANT: GALESBURG - Gates Rubber Company (Industrial) Date: 5-29-68

IBM: 048-DJH-04-3182

Date of Inspection: May 1, 1968

Interviewed: William Rutherford, Operator

Flow: No data available.

Type of treatment: Oil separation: consisting of pumping station 10' x 10' x 11' 11" deep; 2 - 150 gpm pumps @ 27' TDH, 1½ HP @ 1,750 rpm, submersible type. Pump suction is located 2' above bottom of wet well to allow for sludge accumulation; pump shut-off is 3' above bottom of well to trap floating oil. High level overflow is located 11' 11" above bottom of wet well; alarm furnished for high levels; no ventilation furnished on permanent basis, portable blowers are to be used during maintenance work.

Receiving Stream: Contained some oil caught along banks and in weeds; a small amount of oil was leeching into the stream flow.

Comments

Mr. Rutherford stated that the oil trap was checked frequently, but that it had not been found necessary to remove any oil as yet (there was very little oil on top of the liquid on the date of visit). He suggested that the oil in the stream was a result of discharges previous to the installation of the oil trap.

It is the opinion of this engineer that the type of facility provided must be given very close attention to operate properly. Further visits will be made to check on its operation.

To date, no operation reports have been received from this installation. Arrangements are reportedly being made with Mr. Walter Buswell to run analyses on the effluent.

Kenneth C. Merideth
Sanitary Engineer

KCM:new

Reference no. 4

The Gates Rubber Company
Galesburg Division
P. O. Box 1196
Galesburg, Illinois 61401
(309) 343-7171

July 11, 1979

Illinois Environmental Protection
Agency
Division of Water Pollution Control
2200 Churchill Road
Springfield, Illinois 62707

Gentlemen:

On March 30, 1979, an oil spill was experienced at The Gates Rubber Company-Galesburg Facility, which involved 2,800 gallons of #2 fuel oil. In compliance with Spill Prevention Control and Countermeasure Plan, the following report contains the information required:

a. Name of the Facility - - The Gates Rubber Company

b. Name of the Company Agent - - Chuck Meyers, Plant Engineer

c. Location of the Facility - - Galesburg, Illinois

d. Date & Year of Initial Facility Operation - - December 31, 1961

e. Maximum storage or handling capacity and normal daily throughput:

Maximum Storage - 890,250 Gallons #2 Fuel Oil

Normal Daily Throughput - 17.6 Gallons per day in 1978

f. Description of Facility, including maps, flow diagrams, and topographical maps.

A hose manufacturing plant, occupying approximately 90 acres of ground with structures requiring 435,840 square feet. The fuel oil storage is an insurance of maintaining production during the time of interrupted service through the local utility company.

g. A complete copy of this Plan with any amendments - - updated copy enclosed.

h. The cause of such spill, including a failure analysis of system or subsystem in which the failure occurred:

At the base of each of the two 420,000-gallon storage tanks exist water bleed-off valves. An analysis of the valve showed that water had accumulated internally and had frozen during the 1978-79 winter. During the spring thaw this valve then permitted

h. (Continued):

some 11,156 gallons to be dispersed into the earthen dike surrounding the storage tank. During the summer of 1978, a sump pump had been installed to remove water, which had accumulated within the dike area. Inadvertently, this unit was left in operation, whereupon the dike area filled with oil and the pump sensed the fluid level and proceeded to pump some 2,800 gallons over the dike and eventually flowed into Haw Creek. This oil entered Haw Creek approximately one mile west of the Gates' plan, discharged into the Spoon River near London Mills in southern Knox County, then to the Illinois River and to the Mississippi River.

i. The corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements.

The sump pump, which had been installed to remove excess water, has been removed and a weekly inspection by Maintenance personnel has been implemented to avoid future problems. The water drain-off valve, located at the base of the storage tank, has been examined and replaced.

j. Additional preventive measures taken or contemplated to minimize the possibility of recurrence:

As stated in detail above.

k. Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event:

On March 30, 1979, at 11:30 a.m., the Emergency Service & Disaster Agency and the National Response Center were notified. Throughout the day several contacts were made to the E.P.A. Officials, indicating the progress and status of cleaning up this oil spill. A firm was contacted in the Quad-City area, who in turn discharged tank trucks and pumps to remove oil from within the dike area. A total of 11,156 gallons was lost from the storage tank and 8,300 gallons were recovered through this salvage process. Of the 2,856 gallons a portion was absorbed into the earthen dike and the remaining gallons flowed into Haw Creek as originally stated.

Sincerely,

Chuck Meyers

Chuck Meyers
Plant Engineer

cc: Regional Administrator
U.S.E.P.A. Region 5
536 S. Clark Street
Chicago, Illinois 60605

Attn: R. E. Riefebach

CM:mj

Enc:

Reference no. 5
from H. Konzelmann

DATE: November 14, 1990

TO: Project File

FROM: Hank Konzelmann

SUBJECT: 0950105001 - Knox
Galesburg/Gates Rubber
ILD005230370
Superfund/Tech. Repts.

The Gates Rubber Company is located along State Route 150 near Galesburg, Illinois. The site is secured by a fence and security guard. A school is located approximately 650 feet to the north, and a trailer park is 1000 feet to the east. Surface drainage from the site ends up in Haw Creek located 1 mile to the southwest.

On January 4, 1990, approximately 3,000 gallons of fuel oil were released from underground supply lines located near two above-ground storage tanks. Upon discovery of the leak, the fuel lines were removed from service and disconnected.

A site investigation was conducted at the facility to define the impact of the fuel oil release. Fourteen soil borings ranging from five to twelve feet in depth were completed during April and July of 1990. Eleven soil samples were collected and analyzed for BETX. The analytical data indicated that the petroleum contamination in the soil is primarily concentrated along the fuel supply lines and has not migrated off the Gates Rubber Company property.

A temporary groundwater sampling well was installed near the center of the contaminant plume. However, due to large quantities of free product on the water table, a representative sample could not be obtained.

An Environmental Assessment/Hydrogeologic Assessment Work Plan was received by the Agency on August 23, 1990. The work plan called for the installation of a network of five groundwater monitoring well around the spill area. The wells were to be constructed of stainless steel with the screen extending to five feet below the water table.

The upper ten feet of the subsurface at the site consist of predominantly silt and clay in variable amounts. Occasional particles of angular coarse sand or gravel are present in minute quantities. This deposit appears to be of glacial origin exhibiting moderate density and low permeability.

Groundwater was encountered from one to eight feet below the ground surface. There is no dramatic change in stratigraphy at the groundwater table, with the exception of a slight increase in the silt to clay ratio.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

Reference no. 6

DATE: November 20, 1990

TO: Division File

FROM: Hank Konzelmann

SUBJECT: 0950105001 - Knox
Galesburg/Gates Rubber
ILD005230370
Superfund/Tech. Repts.

A meeting was held at the Gates Rubber Company facility near Galesburg on November 16, 1990 at 1:00 pm. The following people were in attendance:

Molly Arp	Beling Consultants
Rodney Brown	Beling Consultants
Chuck Buchna	Gates Rubber Company
Hank Konzelmann	Il. E.P.A

The meeting opened with a description the Voluntary Cleanup Program and how it related to their spill. The discussion included a description of the COT/CPRC committees and the benefits of participation in the program. Following this, the comments included in November 13, 1990 Agency letter were addressed.

It was stated that the material spilled consisted of #2 diesel fuel mixed with some hydraulic fluid. Gates agreed to collect a sample of the material for analysis in order to determine the constituents. I pointed out that the BETX was not appropriate because the release did not fall under the LUST regulations. This was followed with a discussion of the analytical parameters that would be required for the assignment of clean-up objectives.

The details of the planned hydrogeologic study were then discussed. The Agency recommended that they limit the investigation to 3-4 wells located in a triangular fashion around the spill area and include at least one deep boring to determine the geology of the site. The Gates representatives agreed with these recommendations and stated that the work plan would reflect them.

It was then pointed out that a negative pressure pump would facilitated the release of volatile organic compounds (VOCs). As a result, the Agency would not accept data from volatile samples collected in this manner. Gates stated that the VOC samples would not be collected in this manner. In addition, it was agreed that Beling Laboratory would prepare a Quality Assurance Project Plan and that copies of the original laboratory data sheets would be submitted to the Agency.

When asked if he had received the Agency's request for advance payment, Chuck Buchna stated that he had only glanced at it. The reason for such a request was then explained and the need for the signed consent agreement was emphasized.

The meeting closed with the Gates representatives stating that the matters we discussed would have to be worked out and that a work plan would be submitted to the Agency in the near future. In addition, responses to the comments in the Agency letter would be responded to in writing. Following this, we walked to the site of the release where the investigatory and remedial actions that had been taken to date were explained.

I left the site at 3:00 pm.

Reference no. 7

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL

TELEPHONE CONVERSATION RECORD

Knox COUNTY - LPC

Galesburg / Gates Rubber SITE INVENTORY NO. 0950105001

Re: contents of petroleum release from above-ground tanks

Conversation With: Chuck Buchna, Gates Rubber Plant Engineer

(✓) I Called Party ( ) Party Called Me DATE: 8-28-91 TIME: 3:00 PM

What I Said:

In a IEPA memo regarding a meeting between IEPA personnel, Gates Rubber and Beling Consultants, it was noted that the released substance consisted of #2 diesel fuel with some hydraulic fluid. Why was hydraulic fluid mixed with the diesel fuel to be used for heating?

What Other Party Said:

Gates' uses "used" hydraulic fluid from our hydraulic test lab as a supplementary fuel in our boilers. I believe we are permitted by the IEPA to do so. We cycle the hydraulic fluid in our test lab a few times before adding it to our diesel fuel used for heating. I believe that less than 5% of the heating oil consists of used hydraulic fluid and the rest is the no. 2 diesel fuel.

Alan Kirwan

TITLE: EPS-I

LPC 10 1/79 3,000

Reference no. 8

08/20/1990

James E. Kammueller
Manager
Peoria Office, Region 3
Division of Water Pollution Control
Illinois Environmental Protection Agency
5415 North University
Peoria, IL 61614

The Gates Rubber Company
990 South Broadway
P.O. Box 5887
Denver, Colorado 80217
(303) 744-1911

Dear Mr. Kammueller:

Attached are the stormwater discharge application forms (NPDES forms 1 and 2C) as requested in your letter of July 13, 1990. This application is for stormwater discharges only. A copy will be sent to EPA Region 5 as required by the regulations. No testing has been done as the testing requirements have not been specified.

If you have any questions, call me at (303) 744-4572.

Randy Putnam
Environmental Engineer

cc (with attachments):
Mark Dutell - Galesburg
Chuck Buchna - Galesburg
EPA Region 5
cc (w/o attachments):
P. McFadden, VP
J.A. Doninger
Tim Ryant
J. Laipenieks, AT&E
E. Karger, PEPP
file: Galesburg 2333
GBSTM81390.DOX

Certified Mail P324 541 258

RE OF BUSINESS (GALESBURG)

is facility manufactures hose products and is a Group I storm water discharger.

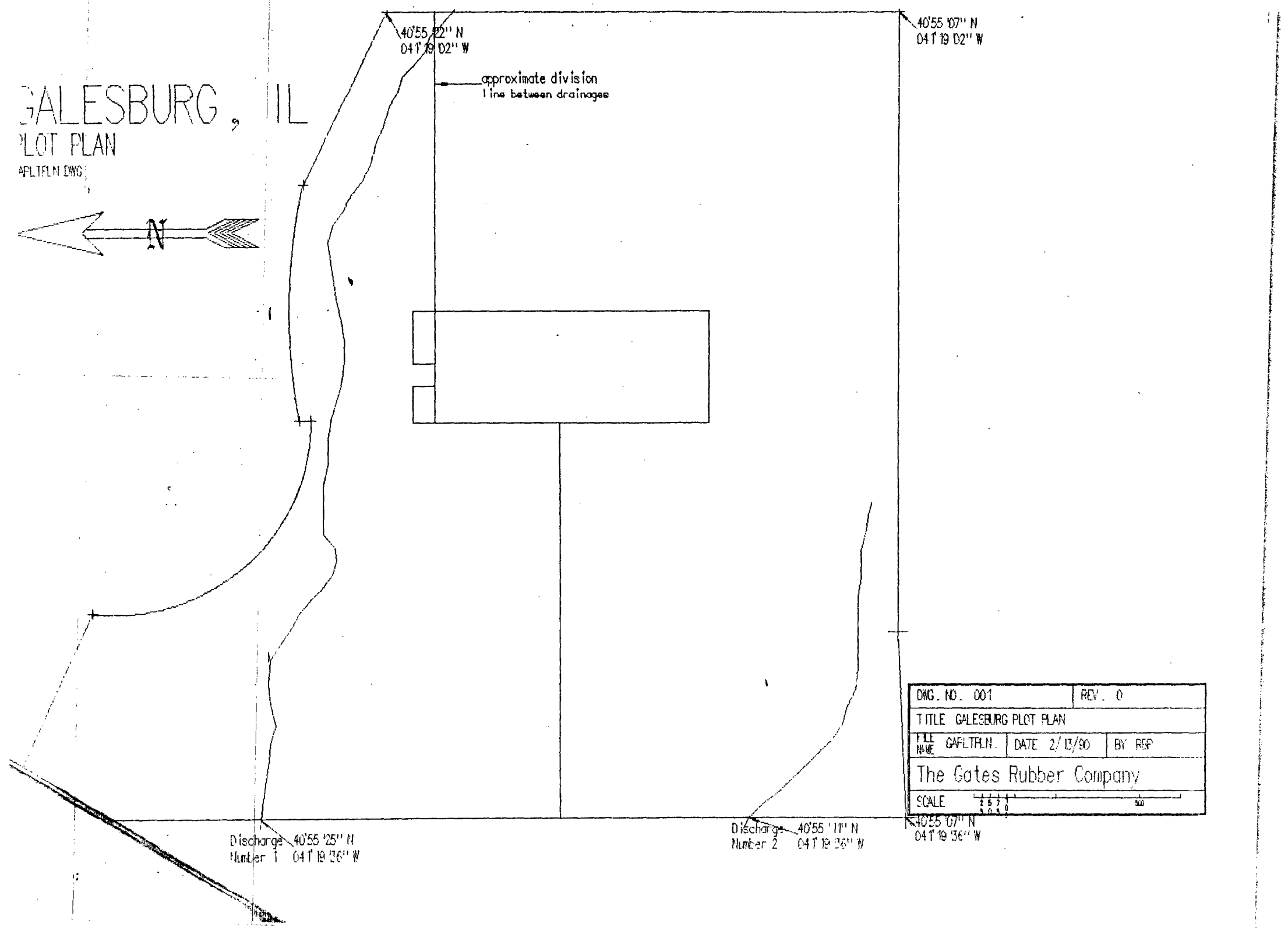
Manufacturing and office activities are carried out in a 468,600 square foot building which is situated on a 105.6 acre site. Parking lots, roadways, and railroad spurs occupy 117,200 square feet of the property. The remaining area is covered by grass or natural vegetation.

There are no raw material stockpiles in drainage areas and minimal opportunity for pollution of storm water by manufacturing or other plant operations. Storm water runoff is neither impounded or treated.

Storm water runs off the property at two points along the west property line and flows West to Haw Creek which flows south to Spoon River near London Mills in southern Knox County, then south to Illinois River near Havana, then south to Mississippi River near St. Louis.

The south most discharge contains runoff from the agricultural property to the south and a field drain system on the Gates property.

BUSGALES


GALESBURG , IL
PLOT PLAN
GAFLTPLN DWG
N
40°55'22" N
041°19'02" W
approximate division
line between drainages
40°55'07" N
041°19'02" W
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Number 1
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041°19'36" W
Discharge
Number 2
40°55'11" N
041°19'36" W
40°55'07" N
041°19'36" W
DWG. NO. 001
REV. 0
TITLE GALESBURG PLOT PLAN
FILE NAME GAFLTPLN.
DATE 2/13/90
BY REP
The Gates Rubber Company
SCALE
500

Reference no. 9

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL

TELEPHONE CONVERSATION RECORD

Knox COUNTY - LPC

Galesburg / Gates Rubber SITE INVENTORY NO. 095010500 1

Re: Galesburg Public Water system

Conversation With: Garold Fields, Galesburg Water Superintendent

☑ I Called Party ( ) Party Called Me DATE: 6-10-91 TIME: 2:00p

What I Said:	What Other Party Said:
When and Why did Galesburg switch to using water from near Oquawka?	Galesburg switched in 1958-59 because of generally poor water quality - it is high in Sulphur and also because they were losing drawdown in the aquifer- about 10 feet per year.
Which of the old wells in Galesburg are still on standby status?	Bradley wells 1 & 2 located at 920 W Main Street.
Are Bradley wells 1 & 2 ever used?	As far as I know, they have been used twice in 30 years. Once was as a result of a power failure due to a tornado.
How many service connections does Galesburg have? and how many private wells within the city?	12,800 service connections and there are two private wells in the city that I know of.

Al Kirwan

TITLE: EPSI

LPC 10 1/79 3,000

Reference no. 0

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS — DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

GEOLOGICAL AND WATER SURVEYS WELL RECORD

NON-RESPONSIVE, WELL LOCATION & PII

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift____. In Rock X.
   Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Shale	0	42

2. Distance to Nearest:
   Building none near Ft. — Seepage Tile Field ____
   Cess Pool____ — Sewer (non Cast iron)____
   Privy____ — Sewer (Cast iron)____
   Septic Tank____ — Barnyard____
   Leaching Pit____ — Manure Pile____
3. Well furnishes water for human consumption? Yes X No____
4. Date well completed Mar 15 77
5. Permanent Pump Installed? Yes____Date____No X
   Manufacturer____Type____Location____
   Capacity____gpm. Depth of Setting____Ft.
6. Well Top Sealed? Yes X No____Type____
7. Pitless Adapter Installed? Yes____No X
   Manufacturer____Model Number____
   How attached to casing?____
8. Well Disinfected? Yes X No____
9. Pump and Equipment Disinfected? Yes____No X
10. Pressure Tank Size____gal. Type____
    Location____
11. Water Sample Submitted? Yes____No X

REMARKS:

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	P.V.C. 200#	0	42
5"	P.V.C. "	30	103

SHOW LOCATION IN SECTION PLAT 750'S, 90'E, NW¼ SW

16. Size Hole below casing: 6 in.
17. Static level 44 ft. below casing top which is 1½ ft. above ground level. Pumping level 90 ft. when pumping at 10 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
yellow clay	38	38
Shale	2	40
Sandstone	21	61
Shale	42	103

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED A. C. Hopson DATE June 6 77

IDPH 4.065
1/74 – KNB-1

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

GEOLOGICAL AND WATER SURVEYS WELL RECORD

NON-RESPONSIVE, WELL LOCATIONS & PII

1. **Type of Well**
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift____. In Rock X.
   Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Shale	0	42

2. Distance to Nearest:
   Building 120 Ft. Seepage Tile Field —
   Cess Pool — Sewer (non Cast iron) —
   Privy — Sewer (Cast iron) —
   Septic Tank 400 Barnyard —
   Leaching Pit — Manure Pile —
3. Well furnishes water for human consumption? Yes X No____
4. Date well completed Sept. 30. 78
5. Permanent Pump Installed? Yes____ Date____ No X
   Manufacturer____ Type____ Location____
   Capacity____gpm. Depth of Setting____Ft.
6. Well Top Sealed? Yes X No____ Type____
7. Pitless Adapter Installed? Yes____ No X
   Manufacturer____ Model Number____
   How attached to casing?____
8. Well Disinfected? Yes X No____
9. Pump and Equipment Disinfected? Yes____ No X
10. Pressure Tank Size____gal. Type____
    Location____
11. Water Sample Submitted? Yes____ No X

REMARKS:

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	Steel 280	0	42
5"	Plastic 250	20	300

SHOW LOCATION IN SECTION PLAT
65', 1210'≤, NW¼ SW

16. Size Hole below casing: 6 in.
17. Static level 32 ft. below casing top which is 1½ ft. above ground level. Pumping level 145 ft. when pumping at 7 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow clay	34	34
Sandstone	29	63
Shale	87	150
Limestone Rock & Shale	36	186
Limestone	4	190

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED A. C. Hopson DATE Dec. 15. 78

IDPH 4.065
1/74 – KNB-1

White Copy – Ill. Dept. of Pu... Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUES... AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug ____. Bored ____. Hole Diam. ____ in. Depth ____ ft.
      Curb material ____. Buried Slab: Yes ____ No ____
   b. Driven ____. Drive Pipe Diam. ____ in. Depth ____ ft.
   c. Drilled X. Finished in Drift ____. In Rock X.
      Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Shale Cutting	0	40

2. Distance to Nearest:
   Building 30 Ft. Seepage Tile Field —
   Cess Pool — Sewer (non Cast iron) —
   Privy — Sewer (Cast iron) —
   Septic Tank 50 Barnyard —
   Leaching Pit — Manure Pile —
3. Well furnishes water for human consumption? Yes X No ____
4. Date well completed Dec 15, 74
5. Permanent Pump Installed? Yes ____ Date ____ No X
   Manufacturer ____ Type ____ Location ____
   Capacity ____ gpm. Depth of Setting ____ Ft.
6. Well Top Sealed? Yes ____ No ____ Type ____
7. Pitless Adapter Installed? Yes ____ No ____
   Manufacturer ____ Model Number ____
   How attached to casing? ____
8. Well Disinfected? Yes ____ No ____
9. Pump and Equipment Disinfected? Yes ____ No ____
10. Pressure Tank Size ____ gal. Type ____
    Location ____
11. Water Sample Submitted? Yes ____ No X

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

NON-RESPONSIVE, WELL LOCATIONS & PII

10. [redacted]
11.
12.
14.
15.

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	STEEL 19.#	0	41
5"	Plastic 250	40	120

SHOW LOCATION IN SECTION PLAT
660' 70' W
NE/c NE

16. Size Hole below casing: 6 in.
17. Static level 32 ft. below casing top which is 1½ ft. above ground level. Pumping level 118 ft. when pumping at 3 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Topsoil	2	2
Yellow Clay		25
Blue clay		40
Gravel		41
Shale & Sandstone		120

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED S. C. Hoffman DATE Dec 15, 1974

IDPH 4.065
1/74 – KNB-1

GEOLOGICAL AND WATER SURVEYS WELL RECORD

RESPONSIVE, WELL LOCATIONS & PII

close private well according to Chuck Buching

10. [redacted]

11.

12.

14.

15.

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	19.45# Steel	1+	65
5"	16.43# Steel	60	110

SHOW LOCATION IN SECTION PLAT
1500' SL, 600' WL of SE
(permit)

16. Size Hole below casing: — in.

17. Static level 40 ft. below casing top which is 1+ ft. above ground level. Pumping level 60 ft. when pumping at 20 gpm for 1 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay	60	60
Shale	40	100

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Russell Blake DATE March 15-69

COUNTY No. 819

KNOX

19-11N-2E

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DR ERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift____. In Rock X.
   Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Shale	0	60

2. Distance to Nearest:
   Building 80 Ft. Seepage Tile Field 110
   Cess Pool— Sewer (non Cast iron)—
   Privy— Sewer (Cast iron)—
   Septic Tank 85 Barnyard—
   Leaching Pit— Manure Pile—
3. Well furnishes water for human consumption? Yes X No____
4. Date well completed Sept 10-75
5. Permanent Pump Installed? Yes____ Date____ No X
   Manufacturer____ Type____ Location____
   Capacity____gpm. Depth of Setting____Ft.
6. Well Top Sealed? Yes X No____ Type____
7. Pitless Adapter Installed? Yes____ No X
   Manufacturer____ Model Number____
   How attached to casing?____
8. Well Disinfected? Yes X No____
9. Pump and Equipment Disinfected? Yes____ No X
10. Pressure Tank Size____gal. Type____
    Location____
11. Water Sample Submitted? Yes____ No X

REMARKS:

IDPH 4.065
1/74 – KNB-1

GEOLOGICAL AND WATER SURVEYS WELL RECORD

RESPONSIVE, WELL LOCATIONS & PII

10.
11.
12.
14.
15.

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	Steel .280	0	64
5"	Steel .256	37	100

SHOW LOCATION IN SECTION PLAT
660W, 520'W, SE/c NE

16. Size Hole below casing: 6 in.
17. Static level 57 ft. below casing top which is 1½ ft. above ground level. Pumping level 115 ft. when pumping at 6 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow-Clay	22	22
Blue Clay	38	60
Sand	2	62
Shale	48	110
Sandstone	10	120

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [signature] DATE Oct-30 75

White Copy –
Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, BUREAU OF ENVIRONMENTAL HEALTH, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62701. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

GEOLOGICAL AND WATER SURVEYS WELL RECORD

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material ____. Buried Slab: Yes____No____
   b. Driven ____. Drive Pipe Diam. ____in. Depth ____ft.
   c. Drilled X. Finished in Drift ____. In Rock X.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
SHALE	0	40

2. Distance to Nearest:
   Building 25 Ft. Seepage Tile Field 95
   Cess Pool ____ Sewer (non Cast iron) ____
   Privy ____ Sewer (Cast iron) ____
   Septic Tank 70 Barnyard ____
   Leaching Pit ____ Manure Pile ____
3. Is water from this well to be used for human consumption?
   Yes X No ____
4. Date well completed NOV 14, 75
5. Permanent Pump Installed? Yes____ No X
   Manufacturer ____ Type ____
   Capacity ____gpm. Depth of setting ____ft.
6. Well Top Sealed? Yes X No ____
7. Pitless Adaptor Installed? Yes____ No X
8. Well Disinfected? Yes X No ____
9. Water Sample Submitted? Yes____ No X

REMARKS:

10.
11.
12.
14.
15.

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6	STEEL .280	0	40
5"	P.V.C. 160LB	36	100

SHOW LOCATION IN SECTION PLA
120'S 300'W of NE¼ SE

16. Size Hole below casing: 6 in.
17. Static level 25 ft. below casing top which is 1½ ; above ground level. Pumping level 40 ft. when pumping at 12 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
YELLOW CLAY	21	21
SAND & CLAY	15	36
SAND STONE	6	42
SHALE	43	85
ROCK	1	86
SHALE	17	103

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED L. C. Hopson DATE 11-25-75

IDPH 4.065
10-72
KNB-1

White Copy –
Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material ____. Buried Slab: Yes____No____
   b. Driven ____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift X. In Rock____.
   Tubular ____. Gravel Packed ____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
Clay	6	175

2. Distance to Nearest:
   Building 40 Ft. Seepage Tile Field 120
   Cess Pool — Sewer (non Cast iron) —
   Privy — Sewer (Cast iron) —
   Septic Tank 70 Barnyard —
   Leaching Pit — Manure Pile —
3. Well furnishes water for human consumption? Yes X No____
4. Date well completed Dec 29 78
5. Permanent Pump Installed? Yes____Date ____No X
   Manufacturer ____Type ____Location ____
   Capacity____gpm. Depth of Setting ____Ft.
6. Well Top Sealed? Yes X No____Type ____
7. Pitless Adapter Installed? Yes____No X
   Manufacturer ____Model Number ____
   How attached to casing? ____
8. Well Disinfected? Yes X No____
9. Pump and Equipment Disinfected? Yes____No X
10. Pressure Tank Size____gal. Type ____
    Location ____
11. Water Sample Submitted? Yes____No X

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. [redacted]
11.
12.
14.

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	Steel - 280	0	75

SHOW LOCATION IN SECTION PLAT
300'W, 45'N, SE/c NE

16. Size Hole below casing: 6 in.
17. Static level 50 ft. below casing top which is 1½ ft. above ground level. Pumping level 60 ft. when pumping at 20 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow Clay	35	35
Blue Clay	39	74
Sand	2	76

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [redacted] DATE Jan 14 79

IDPH 4.065
1/74 – KNB-1

White Copy – Ill. Dep[t] Public Health
Yellow Co[py] – Well Contractor
Blue Copy – [Well] Owner

INSTRUCTIONS [TO] DRILLERS

FILL IN ALL PERTINENT INFORMATION RE[QUE]STED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 6[0]8 STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1. 67

a close private well according to Chuck Buchna

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift____. In Rock____.
   Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 400 Ft. Seepage Tile Field 1560
   Cess Pool X Sewer (non Cast iron)____
   Privy X Sewer (Cast iron)____
   Septic Tank 1000 Ft Barnyard X
   Leaching Pit X Manure Pile X
3. Is water from this well to be used for human consumption?
   Yes X No____
4. Date well completed Nov. 12. 1968
5. Permanent Pump Installed? Yes X No____
   Manufacturer Red Jacket Type Sub-
   Capacity 10 gpm. Depth of setting 115 ft.
6. Well Top Sealed? Yes X No____
7. Pitless Adaptor Installed? Yes X No____
8. Well Disinfected? Yes X No____
9. Water Sample Submitted? Yes X No____

REMARKS:

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

[redacted]

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
50 45 41	8" Steel 28		
	6 in Steel 22		

SHOW LOCATION IN SECTION PLAT

16. Size Hole below casing:____in.
17. Static level 35 ft. below casing top which is 18" ft. above ground level. Pumping level 115 ft. when pumping at 6-8 gpm for 24 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Soil and clay	0 —	30
Grey Shale	30	65
Dark Slate	65	68
Grey Shale	68	100
Sandstone	100	102
Grey Shale	102	110
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED Jack Horton DATE 11-12-68

White Copy – Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

IN[illegible]UCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFO[illegible]ATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
      Curb material____. Buried Slab: Yes____ No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift____. In Rock X.
      Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
SHALE	0	52

2. Distance to Nearest:

Building	52 Ft.	Seepage Tile Field	—
Cess Pool	—	Sewer (non Cast iron)	—
Privy	—	Sewer (Cast iron)	—
Septic Tank	—	Barnyard	—
Leaching Pit	—	Manure Pile	—

3. Well furnishes water for human consumption? Yes X No____
4. Date well completed OCT 30, 1976
5. Permanent Pump Installed? Yes____ Date____ No X
   Manufacturer____ Type____ Location____
   Capacity____gpm. Depth of Setting____Ft.
6. Well Top Sealed? Yes X No____ Type____
7. Pitless Adapter Installed? Yes____ No X
   Manufacturer____ Model Number____
   How attached to casing?____
8. Well Disinfected? Yes X No____
9. Pump and Equipment Disinfected? Yes____ No____
10. Pressure Tank Size____gal. Type____
    Location____
11. Water Sample Submitted? Yes____ No X

REMARKS:

IDPH 4.065
1/74 – KNB-1

GEOLOGICAL AND WATER SURVEYS WELL RECORD

RESPONSIVE, WELL LOCATIONS & PII

10. P[redacted]
11. F[redacted]
12. W[redacted]
14. S[redacted]
15. C[redacted]

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	STEEL - 19LB	0	54
5"	P.V.C. 160LB	24	374

SHOW LOCATION IN SECTION PLAT
~~520'N 700'E~~ 8
~~S... 700~~
3600'NL 1200' WL [illegible]

16. Size Hole below casing: 5 in.
17. Static level 300 ft. below casing top which is 1½ ft. above ground level. Pumping level 360 ft. when pumping at 50 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
YELLOW CLAY	25	25
BLUE CLAY	5	30
SAND	8	38
SHALE	67	105
COAL	3	108
SHALE	54	162
COAL	3	165
SHALE	6	171
SANDSTONE	7	178

(CONTINUE ON SEPARATE SHEET IF NECESSARY) (over)

SIGNED [illegible signature] DATE____

White Copy –
Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, CONSUMER HEALTH PROTECTION, 535 WEST JEFFERSON, SPRINGFIELD, ILLINOIS, 62761. DO NOT DETACH GEOLOGICAL/WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift____. In Rock X.
   Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)
CLAY	0	50

2. Distance to Nearest:
   Building 40 Ft. Seepage Tile Field 85
   Cess Pool — Sewer (non Cast iron) —
   Privy — Sewer (Cast iron) —
   Septic Tank 55 Barnyard —
   Leaching Pit — Manure Pile —
3. Well furnishes water for human consumption? Yes X No____
4. Date well completed 1-15-74
5. Permanent Pump Installed? Yes____ Date____ No X
   Manufacturer____ Type____ Location____
   Capacity____gpm. Depth of Setting____Ft.
6. Well Top Sealed? Yes X No____ Type____
7. Pitless Adapter Installed? Yes____ No X
   Manufacturer____ Model Number____
   How attached to casing?____
8. Well Disinfected? Yes X No____
9. Pump and Equipment Disinfected? Yes____ No____
10. Pressure Tank Size____gal. Type____
    Location____
11. Water Sample Submitted? Yes____ No X

REMARKS:

GEOLOGICAL AND WATER SURVEYS WELL RECORD

RESPONSIVE, WELL LOCATIONS & PII

10. [redacted]
11.
12.
14.
15.

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	P.V.C.	0	62
5"	P.V.C.	65	85

SHOW LOCATION IN SECTION PLAT
120'W, 510'S, SW/c SW

16. Size Hole below casing: 6 in.
17. Static level 45 ft. below casing top which is 16.5 ft. above ground level. Pumping level 85 ft. when pumping at 10 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay (Yellow)	35	35
Clay (Blue)	13	48
Limestone	2	50
Shale & Sandstone	35	85

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [signature] DATE 5-12-74

IDPH 4.065
1/74 – KNB-1

White Copy –
Ill. Dept. of Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS TO DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 616, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled ✓. Finished in Drift____. In Rock ✓.
   Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building 30 Ft. Seepage Tile Field –
   Cess Pool ✓ Sewer (non Cast iron) –
   Privy – Sewer (Cast iron) –
   Septic Tank – Barnyard ✓
   Leaching Pit – Manure Pile –
3. Is water from this well to be used for human consumption?
   Yes ✓ No____
4. Date well completed April 7-78
5. Permanent Pump Installed? Yes ✓ No____
   Manufacturer Aermotor Type____
   Capacity 5 gpm. Depth of setting 130 ft.
6. Well Top Sealed? Yes ✓ No____
7. Pitless Adaptor Installed? Yes ✓ No____
8. Well Disinfected? Yes____ No ✓
9. Water Sample Submitted? Yes____ No ✓

REMARKS:

IDPH 4.065
10/68

GEOLOGICAL AND WATER SURVEYS WELL RECORD

[redacted]

10. P
11. E
12. W
14. S

Elev.____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6"	19.45 # Steel	1 #	149
5"	PVC - Sch 40	90	150

SHOW LOCATION IN SECTION PLAT
200' N, 300' E, SW/4 SE SE

16. Size Hole below casing: – in.
17. Static level 40 ft. below casing top which is 1 ft. above ground level. Pumping level 140 ft. when pumping at 5 gpm for 2 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Soil	1	1
Clay	103	104
Shale	104	150

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Russell Blake DATE May 25 78

White Copy – Ill. Dept. Public Health
Yellow Copy – Well Contractor
Blue Copy – Well Owner

INSTRUCTIONS DRILLERS

FILL IN ALL PERTINENT INFORMATION REQUESTED AND MAIL ORIGINAL TO STATE DEPARTMENT OF PUBLIC HEALTH, ROOM 634, STATE OFFICE BUILDING, SPRINGFIELD, ILLINOIS, 62706. DO NOT DETACH GEOLOGICAL / WATER SURVEYS SECTION. BE SURE TO PROVIDE PROPER WELL LOCATION.

1 67

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

1. Type of Well
   a. Dug____. Bored____. Hole Diam.____in. Depth____ft.
   Curb material____. Buried Slab: Yes____No____
   b. Driven____. Drive Pipe Diam.____in. Depth____ft.
   c. Drilled X. Finished in Drift____. In Rock____.
   Tubular____. Gravel Packed____.
   d. Grout:

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:
   Building House 60 Ft. Seepage Tile Field None
   Cess Pool 400 ft. Sewer (non Cast iron)____
   Privy None Sewer (Cast iron) X
   Septic Tank 425 ft. Barnyard None
   Leaching Pit 500 ft. Manure Pile None
3. Is water from this well to be used for human consumption?
   Yes____ No X
4. Date well completed Sept 12, 1969
5. Permanent Pump Installed? Yes____ No X
   Manufacturer____ Type____
   Capacity____gpm. Depth of setting____ft.
6. Well Top Sealed? Yes____No____
7. Pitless Adaptor Installed? Yes____No____
8. Well Disinfected? Yes____No____
9. Water Sample Submitted? Yes____No____

REMARKS:

GEOLOGICAL WATER SURVEYS WATER WELL RECORD

10.
11.
12.
14.

[redacted]

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
6 in	23 lb. steel	0	75
4 in	Liner 6.3 –		100 ft.

SHOW LOCATION IN SECTION PLAT

16. Size Hole below casing:____in.
17. Static level____ft. below casing top which is____ft. above ground level. Pumping level____ft. when pumping at____gpm for____hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Soil and clay.	0 –	20 ft.
Drift	20 –	62 "
Sand and Gravel	62 –	63 "
Grey Shale	63	94 "
Sandstone	94	95 "
Grey Shale	95	100 "
(CONTINUE ON SEPARATE SHEET IF NECESSARY)		

SIGNED [redacted] DATE Sept. 15 1969

Reference no. 11

INTRODUCTION

This report has been prepared by the Agency pursuant to Section 17.1 of the Illinois Environmental Protection Act. The report summarizes information about your facility a samples collected and analyzed from your well(s). The well site survey provides an inventory of the area around the well(s) to help increase your awareness of potential hazards to groundwater utilized by your facility. This information and technical data will assist you in developing and implementing local groundwater protection measures authorized by the Act.

FACILITY DESCRIPTION AND GEOLOGIC PROFILE OF WELL SITES

The Knoxville PWS utilizes three public water supply wells. These wells provide approximately 355,000 gpd to 1215 service connections (roughly 3240 individuals). The water supply is located in the N. central portion of the Knoxville Corporate Limits: Well #1 NON-RESPONSIVE, WELL LOCATIONS

The wells produce water from deep bedrock aquifers. These aquifers are overlain by relatively impermeable till. Permeability is the ability of a soil or sediment to transmit fluids. A detailed description and geologic profile is found in the Facility Wells Report (Appendix C). Table 1 describes the wells as follows:

Table I

	Minimum Setback (Ft.)	Maximum Setback (Ft.)	Status	Capacity (gpm) (MGD)	Specific Capacity (gpm/ft)	Treatment	Aquifer	Well Depth (Ft.)	Well Logs Available
Well #1 (58000)	200	No	A	165 .238	—	Chl.,Fl., Aeration	Bedrock	1365	Yes
Well #2 (58001)	200	No	A	400 .576	—	Chl.,Fl., Aeration	Bedrock	2498	Yes
Well #3 (58002)	200	No	A	400 .576	—	Chl.,Fl., Aeration	Bedrock	2525	Yes

A=Active

GROUNDWATER SAMPLING/MONITORING HISTORY

Well #1, #2 and #3 were sampled on April 16, 1986 as part of a Statewide Groundwater Monitoring Program. At this time, the wells were sampled and analyzed for inorganic chemicals (IOC) and volatile organic/aromatic (VOC/VOA) compounds.

VOC/VOA analysis on the three wells did not detect quantifiable levels of volatile organic/aromatic compounds. Inorganic analysis indicated parameters for the wells to be consistent with similar deep bedrock aquifers in the State of Illinois. For a detailed sampling and monitoring history refer to Appendix D.

KNOXVILLE

The city of Knoxville (~~2930~~ 3432) installed a public water supply in 1896. Three wells are in use. In 1950 there were 578 services, all metered; the estimated average and maximum daily pumpages were 90,000 and 95,000 gpd, respectively. In 1980 there were 1214 services, all metered; the average and maximum daily pumpages were 345,000 and 450,000 gpd, respectively. The water is chlorinated.

WELL NO. 1, open to the Galena-Platteville dolomite and the Glenwood-St. Peter Sandstone, was constructed in September 1895 to a depth of 1350 ft by S. Swanson, Minneapolis, Minn., and deepened in 1935 to a reported depth of 1375 ft by C. W. Varner, Dubuque, Iowa. The well RESPONSIVE, WELL LOCATIONS [redacted] The land surface elevation at the well is approximately 777 ft.

A correlated drillers log of Well No. 1 furnished by the State Geological Survey follows:

Strata	Thickness (ft)	Depth (ft)
PLEISTOCENE SERIES		
Drift	20	20
PENNSYLVANIAN SYSTEM		
Shale	10	30
Coal	0.5	30.5
Clay and shale	106	136.5
Coal	0.5	137
PENNSYLVANIAN AND MISSISSIPPIAN SYSTEMS		
Shale	348	485
DEVONIAN AND SILURIAN SYSTEMS		
Limestone	188	673
ORDOVICIAN SYSTEM		
Maquoketa Formation		
Shale	92	765
Limestone	70	835
Shale	39	874
Galena-Platteville Formation		
Limestone	306	1180
St. Peter Formation		
Sandstone	170	1350
No record	25	1375

WELL NO. 1, LABORATORY NO. B47774

		mg/l	me/l			mg/l	me/l
Iron	Fe	0.38		Silica	SiO_2	9.7	
Manganese	Mn	0.0		Fluoride	F	2.1	0.11
Ammonium	NH_4	1.5	0.08	Boron	B	1.1	
Sodium	Na	300	13.05	Nitrate	NO_3	0.0	0.00
Potassium	K	13.1	0.34	Chloride	Cl	180	5.08
Calcium	Ca	63	3.14	Sulfate	SO_4	430	8.94
Magnesium	Mg	28	2.30	Alkalinity	(as $CaCO_3$)	267	5.34
Arsenic	As	0.00		Hardness	(as $CaCO_3$)	267	5.34
Barium	Ba	0.0					
Copper	Cu	0.01		Total dissolved minerals		1260	
Cadmium	Cd	0.00					
Chromium	Cr	0.00					
Lead	Pb	0.00					
Mercury	Hg	0.0004					
Nickel	Ni	0.0					
Selenium	Se	0.00					
Silver	Ag	0.00					
Cyanide	CN	0.00					
Zinc	Zn	0.0		pH (as rec'd)		7.6	

WELL NO. 2, open to the Cambrian-Ordovician aquifer, was completed in January 1935 to a depth of 2498 ft by C. W. Varner, Dubuque, Iowa. The well

RESPONSIVE, WELL LOCATIONS

. The land surface elevation at the well is 777.8 ft.

A sample study log of Well No. 2 furnished by the State Geological Survey follows:

Strata	Thickness (ft)	Depth (ft)
PLEISTOCENE SERIES		
Glacial till	20	20
PENNSYLVANIAN SYSTEM		
Shale, some sandstone, limestone and coal	240	260
MISSISSIPPIAN SYSTEM		
Kinderhook shale	200	460
DEVONIAN SYSTEM		
Cedar Valley shaly limestone	70	530
Wapsipinicon limestone	20	550

SILURIAN SYSTEM		
Niagaran-Alexandrian Series		
Dolomite, shale at base	15	565
Dolomite	115	680
Dolomite and shale	25	705
ORDOVICIAN SYSTEM		
Maquoketa shale and dolomite	180	885
Galena-Platteville dolomites	315	1200
Glenwood Formation		
Sandstone and dolomite	20	1220
Sandstone	80	1300
Shale and dolomite	5	1305
St. Peter Formation		
Sandstone	85	1390
Sandstone, shale, and chert fragments	10	1400 (1485)
Shakopee dolomite, thin beds of sandstone and shale	225	1625
New Richmond dolomite and sandstone, thin shales	75	1700
Oneota dolomite	240	1940
CAMBRIAN SYSTEM		
? Trempealeau dolomite	290	2230
Franconia sandstone and dolomite, some shale	170	2400
Galesville sandstone, part dolomitic	95	2495

A 15-in. diameter hole was drilled to a depth of 480 ft, reduced to 10 in. between 480 and 900 ft, reduced to 8 in. between 900 and 1485 ft, and finished 6 in. in diameter from 1485 to 2498 ft. The well is cased with 16-in. OD drive pipe from land surface to a depth of 90 ft, 10-in. pipe from 1 ft above land surface to a depth of 480 ft (cemented in from 0 to 90 ft), 8-in. pipe from 459. ft to a depth of 900 ft, and a 6.2-in. liner from 1383 ft to a depth of 1485 ft.

During drilling, a production test was conducted by the State Water Survey on November 16, 1934, at a depth of 1376 ft. After 4.5 hr of pumping at a rate of 92 gpm, the drawdown was 76 ft from a nonpumping water level of 224 ft below land surface.

A production test was conducted by the State Water Survey on January 30, 1935, at the final depth. After pumping at a rate of 232 gpm, the drawdown was 16.5 ft from a nonpumping water level of 214.0 ft below the top of the casing. Pumping was continued at a rate of 300 gpm with a drawdown of 24.0 ft.

On February 8, 1944, after pumping for 30 min at a rate of 240 gpm, the drawdown was 18.5 ft from a nonpumping water level of 257.5 ft. Fifteen min after pumping was stopped, the water level recovered to 259.5 ft.

In 1956, the well reportedly produced about 200 gpm for 1 hr with a drawdown of 25 ft from a nonpumping water level of 280 ft.

The pumping equipment presently installed is a Fairbanks-Morse submersible pump rated at 300 gpm at about 360 ft TDH, and powered by a 40-hp electric motor.

A mineral analysis made by the Illinois Environmental Protection Agency (Lab. No. B20949) of a sample collected November 6, 1979, after pumping for 30 min at 250 gpm, showed the water to have a hardness of 231 mg/l, total dissolved minerals of 1109 mg/l, and an iron content of 0.17 mg/l.

WELL NO. 3, open to the Cambrian-Ordovician aquifer, was completed in March 1960 to a depth of 2525 ft by the Varner Well and Pump Co., Dubuque, Iowa.

RESPONSIVE, WELL LOCATIONSI RESPONSIVE, WELL LOCATIONS

[redacted] The land surface elevation at the well is approximately 778 ft.

A drillers log of Well No. 3 follows:

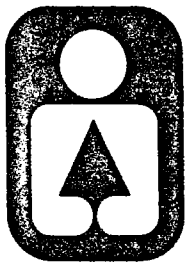
Strata	Thickness (ft)	Depth (ft)
No record	5	5
Yellow clay	10	15
Blue, green, black clay - some gravel	16	31
Shale and coal, dark gray and black	4	35
Shale, blue - gray - some rock	4	39
Shale	13	52
Gray shale	23	75
Sandy shale	20	95
Sandstone	5	100
Sandstone and shale	15	115
Sandstone and rock	5	120

Reference no. 12

Brent Manning
Director

John W. Comerio
Deputy Director

Bruce F. Clay
Assistant Director



Illinois Department of Conservation
life and land together

LINCOLN TOWER PLAZA • 524 SOUTH SECOND STREET • SPRINGFIELD 62701-1787
CHICAGO OFFICE • ROOM 4-300 • 100 WEST RANDOLPH 60601

August 28, 1991

Mr. Al Kirwan
IEPA
5415 N. University
Peoria, IL 61614

Re: ILD #005230370
Knox County

Dear Mr. Kirwan:

The Department, per your August 21, 1991 request, has completed its review of the above noted CERCLIS project in Knox County, Illinois.

There are no sensitive resources (form attached) on-site or in the 0-¼ or ¼ to ½ mile radius of the site.

Relative to the water path, Haw Creek is considered a moderate aquatic resource noted for its bullhead and catfish fishing. It also serves as an important nursery area for the Spoon River.

Thank you for the opportunity to comment.

Sincerely,

Richard W. Lutz

Richard W. Lutz
Acting Supervisor
Division of Planning

RWL:ts

Att: sensitive areas form

DEPARTMENT OF CONSERVATION IDENTIFICATION OF ENVIRONMENTAL SENSITIVE AREAS

ILD # 005230370

— = Navin Area

TARGET DISTANCE CATEGORIES

SENSITIVE ENVIRONMENTS	On-site	0-1/4 mile	1/4-1/2 mile	stream milage 1/5 miles-blue
I. Critical habitat for Federally designated or proposed endangered or threatened species	—	—	—	—
II. Habitat known to be used by Federally designated or proposed endangered or threatened species	—	—	—	—
III. State wildlife refuge	—	—	—	—
IV. Spawning areas critical for the maintenance of fish/ shellfish species within a river system	—	—	—	Item Circle * important Navigation area for Spoon River
V. Terrestrial areas utilized by large or dense aggregations of vertebrate animals for breeding	—	—	—	—
VI. Habitat known to be used by State designated or threatened species	—	—	—	—
VII. Habitat known to be used by a species under review as to its Federal endangered or threatened status	—	—	—	—
VIII. State lands designated for wildlife or game management	—	—	—	—
IX. State designated natural area	—	—	—	—
X. Particular areas, relatively small in size, important to the maintenance of unique biotic communities	—	—	—	—

If any of the sensitive areas identified above exist within the designated target distance limits, please put an asterisk (*) in the appropriate column.

copied from Beling Consultants investigative report at Division files
Reference no. 13

1.0 EXECUTIVE SUMMARY

The Gates Rubber Company is located along State Route 150 near Galesburg, Illinois, as shown on the Vicinity Map, Figure 1.

On January 4, 1990, approximately 3,000 gallons of fuel oil were released from underground supply lines of two (2) above ground storage tanks. Upon discovery of the leak, the fuel lines were removed from service and disconnected. On January 8, 1990, six (6) test pits were excavated near the release area to pump out free product that collected in the pits. Approximately 1,200 gallons have been recovered, as of August 15, 1990, and placed into drums for disposal.

A site investigation was conducted at the Gates Rubber Company to define the impact of the fuel oil release. The primary objectives of the assessment were to:

A. Determine the horizontal and vertical extent of the contamination in the soil.

B. Quantify the levels of contamination in the soil.

C. Determine if groundwater has been impacted by the release of fuel oil.

D. Assess the impact of the contamination.

Fourteen (14) soil borings were completed at the site in April and July of 1990, as a part of the investigation to define the extent of contamination in the soil. Eleven (11) soil samples were collected and analyzed for benzene, ethylbenzene, toluene, and xylene (BETX). The analytical data indicated that the petroleum contamination in the soil is primarily concentrated along the fuel supply lines and has not migrated off the Gates Rubber Company property.

A temporary groundwater sampling well was installed near the center of the contaminant plume to obtain a groundwater sample. However, such large quantities of fuel oil were present that a representative groundwater sample could not be obtained.

As a result of the groundwater contamination at the Gates Rubber Company site, additional subsurface exploratory work should be completed to evaluate the quantity and distribution of contaminants in the groundwater. A Hydrogeologic Assessment Work Plan is being submitted as part of this report. The primary objectives of this study will be as follows:

A. Determine the extent of the fuel oil contamination in the groundwater.

B. Evaluate the hydrogeologic conditions of the site.

C. Quantify the levels of contamination in the groundwater based on current Illinois Environmental Protection Agency guidelines for fuel oil contamination.

D. Obtain and analyze the lithologic characteristics of the soil.

E. Examine the potential impact, if any, that the fuel oil release may have on local groundwater quality.

A network of five (5) groundwater monitoring wells will be installed at various locations around the site to facilitate the collection of groundwater samples and potentiometric surface elevations. The data obtained during the investigation will be submitted to the Illinois Environmental Protection Agency for approval. Based on information compiled during the hydrogeologic study, a remediation strategy will be prepared and submitted for review.